



Water-Data Report 2008

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°36'44", long 74°35'27" referenced to North American Datum of 1983, Bridgewater Township, Somerset County, NJ, Hydrologic Unit 02030105, on left bank 150 ft upstream from bridge on Crim Road, 1.4 mi northwest of Martinsville, and 1.8 mi upstream from confluence with East Branch Middle Brook.

DRAINAGE AREA.--1.99 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1979 to current year.

REVISED RECORDS.--WDR NJ-91-1: 1990. WDR NJ-96-1: 1980-94 (P), WDR NJ-99-1: 1990 (M), 1997 (M).

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft above NGVD of 1929 (levels by Somerset County).

REMARKS.--Records fair, except for daily discharges below 1 ft³/s, which are poor. Several measurements of water temperature were made during the year. Satellite rain and gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 1	1900	150	4.12
Mar 8	1445	348	5.35
Jul 5	1730	*371	*5.47
Sep 6	1945	233	4.69

Water-Data Report 2008

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.15	0.30	0.70	3.4	28	4.2	3.7	1.2	1.1	0.29	0.38	0.15
2	0.18	0.29	0.96	2.2	7.3	2.9	3.0	1.1	0.64	0.26	0.36	0.14
3	0.18	0.34	9.3	1.4	2.9	3.3	2.0	1.1	0.53	0.25	0.35	0.14
4	0.18	0.33	1.5	1.2	2.3	4.1	9.1	1.1	3.2	0.25	0.32	0.14
5	0.18	0.30	1.0	1.2	2.8	23	3.7	0.88	1.1	27	0.30	0.13
6	0.18	0.98	0.80	1.5	3.4	4.6	2.7	0.68	0.68	1.5	0.31	41
7	0.18	0.34	0.67	1.5	3.1	12	2.2	0.65	0.60	0.56	0.28	2.5
8	0.19	0.30	0.71	1.4	1.9	56	2.0	0.70	0.58	0.44	0.29	0.40
9	0.69	0.25	2.5	1.3	1.8	11	2.0	16	0.74	0.46	0.24	1.9
10	0.49	0.28	4.8	1.1	1.9	5.1	1.8	5.6	0.61	0.47	0.26	0.51
11	0.19	0.22	1.2	9.5	1.5	4.1	1.7	1.8	0.66	0.31	0.31	0.29
12	3.8	0.21	1.1	2.5	1.4	3.6	12	4.9	0.45	0.30	0.27	1.0
13	0.72	0.29	11	2.0	67	3.0	2.3	2.0	0.40	0.27	0.24	0.71
14	0.55	0.23	10	6.0	11	2.9	1.7	1.3	1.1	3.2	0.24	0.37
15	0.48	1.5	2.6	2.8	5.8	3.2	1.4	1.1	1.2	0.45	1.1	0.29
16	0.41	0.51	5.3	1.6	3.5	3.7	1.3	18	0.46	0.34	0.37	0.26
17	0.40	0.37	2.9	1.3	4.8	2.7	1.2	9.2	0.45	0.29	0.20	0.26
18	0.36	0.34	1.2	13	19	2.5	1.2	4.2	0.41	0.29	0.18	0.23
19	0.65	2.1	1.0	2.9	6.3	34	1.1	2.6	0.40	0.28	0.17	0.21
20	2.6	2.3	1.6	1.8	3.2	26	1.1	7.9	0.36	0.28	0.16	0.21
21	0.44	0.77	1.5	1.1	2.3	5.3	1.1	3.6	0.34	0.28	0.16	0.21
22	0.31	0.47	2.1	1.1	2.6	3.8	1.1	2.2	0.63	0.32	0.15	0.22
23	0.34	0.59	37	1.1	2.7	2.9	0.99	1.6	0.40	8.0	0.15	0.21
24	0.43	0.49	8.0	0.96	2.3	2.5	1.0	1.3	0.57	7.7	0.15	0.24
25	0.72	0.48	2.4	0.84	2.8	2.2	0.97	1.1	0.38	0.88	0.15	0.27
26	0.90	15	6.6	0.82	6.0	2.2	1.1	0.96	0.36	0.52	0.15	3.6
27	18	5.1	7.4	0.86	9.5	2.1	1.1	1.0	0.34	0.99	0.14	0.55
28	1.1	1.0	2.4	0.82	3.4	2.1	13	0.84	0.33	0.60	0.14	6.6
29	0.51	0.80	18	0.83	2.2	1.8	4.1	0.65	0.33	0.46	0.15	1.7
30	0.40	0.64	3.3	2.5	---	1.7	1.6	0.59	0.30	0.42	0.39	0.62
31	0.31	---	10	1.0	---	1.9	---	4.5	---	0.40	0.18	---
Total	36.22	37.12	159.54	71.53	212.7	240.4	83.26	100.35	19.65	58.06	8.24	65.06
Mean	1.17	1.24	5.15	2.31	7.33	7.75	2.78	3.24	0.66	1.87	0.27	2.17
Max	18	15	37	13	67	56	13	18	3.2	27	1.1	41
Min	0.15	0.21	0.67	0.82	1.4	1.7	0.97	0.59	0.30	0.25	0.14	0.13
Cfsm	0.59	0.62	2.59	1.16	3.69	3.90	1.39	1.63	0.33	0.94	0.13	1.09
In.	0.68	0.69	2.98	1.34	3.98	4.49	1.56	1.88	0.37	1.09	0.15	1.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2.43	3.37	4.28	4.28	4.06	5.96	5.27	3.93	2.24	2.07	1.19	1.82
Max	9.28	10.5	11.5	11.9	9.02	21.4	12.4	19.4	7.91	6.40	6.46	11.7
(WY)	(1990)	(1989)	(1984)	(1996)	(1988)	(1994)	(2007)	(1989)	(2003)	(1984)	(2000)	(1999)
Min	0.12	0.22	0.13	0.12	0.41	1.44	0.74	0.76	0.27	0.08	0.12	0.11
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(2006)	(1985)	(1986)	(1999)	(1980)	(1980)	(1980)

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1979 - 2008	
Annual total	1,269.01		1,092.13			
Annual mean	3.48		2.98		3.41	
Highest annual mean					5.48	1989
Lowest annual mean					0.77	2002
Highest daily mean	139	Apr 15	67	Feb 13	318	Sep 16, 1999
Lowest daily mean	0.15	Sep 21	0.13	Sep 5	0.00	Sep 19, 1980
Annual seven-day minimum	0.15	Sep 25	0.15	Aug 22	0.00	Sep 19, 1980
Maximum peak flow			371	Jul 5	a1,490	Sep 16, 1999
Maximum peak stage			5.47	Jul 5	9.30	Sep 16, 1999
Instantaneous low flow			0.12	Many days	0.00	Sep 19, 1980
Annual runoff (cfsm)	1.75		1.50		1.71	
Annual runoff (inches)	23.72		20.42		23.29	
10 percent exceeds	5.6		6.6		6.0	
50 percent exceeds	1.2		1.0		0.95	
90 percent exceeds	0.30		0.23		0.15	

^a From rating curve extended above 400 ft³/s on basis of indirect computation of peak flow.

